
Module bridges for smart labels

5

Patent Claims

1. Module bridges for smart labels for positioning chip modules (5) on carriers (12) and for the bridging connection of connection elements of the chip modules (5) to connection elements (11a, 11b) of antenna elements (11) arranged on or in the carriers (12),

10 characterized in that
a plurality of module bridges (10) are arranged one behind the other on a carrier strip (1), wherein the carrier strip (1) has a plurality of depressions (2) arranged one behind the other for respectively receiving a chip module (5) assigned to a module bridge (10) and contact layers (7a, 7b), which cover the connection elements of the chip modules (5), with increased dimensions compared to the dimensions of the connection elements.

- 15 2. Module bridges according to Claim 1,

20 characterized in that
applied to the contact layers (7a, 7b) are adhesive layers (8a, 8b) for adhesively attaching individual module bridges (10) to the carriers (12) in the region of the connection elements (11a, 11b) of the antenna elements (11).

- 25 3. Module bridges according to Claim 1,

characterized in that

the contact layers (7a, 7b) are designed to be self-adhesive.

- 30 4. Module bridges according to any of Claims 1-3,

characterized in that

the contact layers (7a, 7b) consist of a first strip-like contact layer (7a) which extends in the running direction of the carrier strip and covers the first connection elements of first connection sides (5a) of the chip modules (5), and of a second strip-like contact layer (7b) which extends in the longitudinal direction of the carrier strip and covers the second connection elements of second connection sides (5b) of the chip modules (5).

5. Module bridges according to Claim 4,
characterized in that
the first and second strip-like contact layers (7a, 7b) have interruptions (4) between
5 the chip modules (5), said interruptions extending in the width direction of the carrier
strip.
10. Module bridges according to any of Claims 2-5,
characterized in that
the adhesive layers (8a, 8b) consist of two strip-like adhesive layers (8a, 8b) with
interruptions (4), said layers running parallel to one another in the longitudinal
direction of the carrier strip.
15. Module bridges according to any of the preceding claims,
characterized in that
the chip modules (5) are arranged within the depressions (2) by means of adhesive
(9a, 9b).
20. Module bridges according to any of the preceding claims,
characterized in that
the depressions (2) have a sufficient depth for arranging the chip modules (5) therein
in such a way that their upper sides (5c) and a surface (1a) of the carrier strip (1)
which surrounds the depressions (2) lie in one plane.
25. 9. Module bridges according to any of the preceding claims,
characterized in that
the depressions (2) are shaped to be complementary to outer shapes of the chip
modules (5) to be received therein.
30. 10. Module bridges according to any of the preceding claims,
characterized in that
the depressions (2) in each case have at least one hole on the underside.
11. Module bridges according to any of the preceding claims,

characterized in that

the transport strip (1) has rows of holes (3) at the edge for the engagement of
transport elements.

- 5 12. Module bridges according to any of the preceding claims,
characterized in that
the carrier strip (1) is made of a deformable plastics and/or paper material.